09/762476
Art #14

=> s lox or frt or att or attp or attb or attl or attr or (site specific) or recombinase
L1 84482 LOX OR FRT OR ATT OR ATTP OR ATTB OR ATTL OR ATTR OR (SITE SPECI
FIC) OR RECOMBINASE

=> s marker
L2 490143 MARKER

=> s "pac 1" or "not 1" or "fse 1" or "sce 1" or "pme 1" or "swa 1"
1 FILES SEARCHED...
3 FILES SEARCHED...
75% OF LIMIT FOR TOTAL ANSWERS REACHED
4 FILES SEARCHED...
75% OF LIMIT FOR TOTAL ANSWERS REACHED
COMMAND INTERRUPTED
If this message appears repeatedly, please notify the Help Desk.
Enter "HELP STN" for information on contacting the nearest STN Help Desk by telephone or via SEND in the STNMAIL file.

=> s ori or (origin(w)replication)

L3 5791 ORI OR (ORIGIN(W) REPLICATION)

=> s rare(5n)(restriction or endonuclease)

L4 1415 RARE(5N)(RESTRICTION OR ENDONUCLEASE)

=> s l3 or l5

L5 NOT FOUND
The L-number entered could not be found. To see the definition of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s "pac" or "not" or "fse" or "sce" or "pme" or "swa"
L5 43362 "PAC" OR "NOT" OR "FSE" OR "SCE" OR "PME" OR "SWA"

=> s l4 or l5
L6 44750 L4 OR L5

=> s l1 and l2 and l3 and l6
L7 0 L1 AND L2 AND L3 AND L6

=> s l1 and l2
L8 2274 L1 AND L2

=> s l1 and l2 and l3
L9 18 L1 AND L2 AND L3

=> dup rem l9
PROCESSING COMPLETED FOR L9
L10 16 DUP REM L9 (2 DUPLICATES REMOVED)

=> d l10 ibib abs 1-16

L10 ANSWER 1 OF 16 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 2002-691755 [74] WPIDS
DOC. NO. CPI: C2002-195545
TITLE: New bacteriophage or plasmid cloning vectors, useful for in vitro or in vivo cloning nucleic acid inserts of interest used as tools in molecular genetic research.
DERWENT CLASS: B04 D16
INVENTOR(S): CARNINCI, P; HAYASHIZAKI, Y
PATENT ASSIGNEE(S): (RIKE) RIKEN KK
COUNTRY COUNT: 24
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002070720 A1		20020912	(200274)*	EN	162

RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
W: CA CN IN JP US

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002070720 A1		WO 2002-JP1667	20020225

PRIORITY APPLN. INFO: JP 2001-57794 20010302
AN 2002-691755 [74] WPIDS
AB WO 200270720 A UPAB: 20021118
NOVELTY - A new bacteriophage or a plasmid cloning vector comprising:
(a) a construction segment (CS) and a replaceable segment (RS); or
(b) a bacterial artificial chromosome (pBAC) or its segment comprising at least an origin of replication (***ori***).
DETAILED DESCRIPTION - A new bacteriophage or a plasmid cloning
vector comprising:
(a) a construction segment (CS) and a replaceable segment (RS); or
(b) a bacterial artificial chromosome (pBAC) or its segment comprising at least an origin of replication (***ori***).
The size of CS is:
(a) X-1.2 kb at most CS less than X (X corresponds to the minimum size necessary to the vector for undergoing packaging); or
(b) 36.5 kb at most CS less than 38 kb.
RS comprises:
(a) at least the ccdB gene; or
(b) at least a recombination site or its derivative, or is flanked by two asymmetric site sequences that do not ligate with each other, and are recognized by restriction endonucleases.
Two recombination sites that do not recombine with each other may also flank RS.
INDEPENDENT CLAIMS are also included for:
(1) a method (I) for cloning a nucleic acid insert of interest or for preparing a bulk nucleic acid library of interest, comprises:
(a) preparing at least the cloning vector cited above;
(b) replacing RS with a nucleic acid insert into the cloning vector obtaining a product consisting of DNA, cDNA or RNA/DNA hybrid;
(c) allowing the in vivo or in vitro excision of the nucleic acid insert or of the plasmid comprising the nucleic acid insert; and
(d) recovering the (recombinant) plasmid carrying the nucleic acid insert or a library of the plasmids;
(2) a kit comprising at least the cloning vector or the library of vectors cited above; and
(3) methods (II) for preparing at least one normalized and/or subtracted library comprising either (M1) or M2):
(a) (M1):
(i) providing at least an excised plasmid or a destination plasmid prepared by the method (I);
(ii) providing the plasmid to a pool of nucleic acid targets;
(iii) removing the hybrids; and
(iv) collecting the normalized and/or subtracted nucleic acid targets; or
(b) (M2):
(i) providing at least the vector, where the CS of the vector comprises F1 ***ori*** ;
(ii) replacing RS with a nucleic acid insert of interest;
(iii) adding a helper phage and producing a number of a single strand plasmid vector copies;
(iv) providing the copies to a pool of nucleic acid targets;
(v) removing the hybrids; and
(vi) collecting the normalized and/or subtracted nucleic acid targets.
USE - The bacteriophage or plasmid cloning vectors are useful for in vitro or in vivo method of cloning nucleic acid inserts of interest used as tools in molecular genetic research.
ADVANTAGE - The present invention provides cloning vectors having the
characteristics of being size bias free and allowing the preparation of size balanced comprising very long, rare full-length cDNAs, capable of improved recombination mechanism, and able to do background cutting. The
new family of vectors is capable of cloning nucleic acids of wide range size, preferably very long ones, with high efficiency of excision and reduced background and contamination.
Dwg.0/14

L10 ANSWER 2 OF 16 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 2002-424755 [45] WPIDS
DOC. NO. CPI: C2002-120270

then propagated to produce recombinant strains having genes which express
the insecticidal Bacillus thuringiensis toxin.
USE/ADVANTAGE - The recombinant strains are applied to plants to provide the insecticidal toxin and prevent plants from being ravaged by insect attack. Method avoids use of chemical agents and the associated environmental pollution.
Dwg.0/0
ABEQ US 5650308 A UPAB: 19970828
A method of constructing a recombinant Bacillus thuringiensis (B.t.) strain containing no DNA elements foreign to B.t. which comprises:
(a) transforming a host B.t. strain with a plasmid shuttle vector containing:
(i) an origin of replication native to B.t.;
(ii) DNA not native to B.t. selected from the group consisting of selectable ***marker*** genes, origins or replication functional in E. coli, and origins of replication functional in a Bacillus host species other than B.t.;
(iii) one or more insecticidal B.t. protein toxin genes; and
(iv) two identical internal resolution sites oriented in the same direction and flanking the DNA not native to B.t., the sites being the same as an internal resolution site from a Tn3-type transposon native to B.t.;
(b) introducing into the transformed B.t. strain a resolvase protein to effect a ***site*** - ***specific*** recombination event involving the internal resolution sites, thereby excising from the plasmid shuttle vector the DNA not native to B.t.; and
(c) recovering a recombinant B.t. strain containing a recombinant plasmid adapted replicating in the B.t. strain and containing
(i) an origin of replication native to B.t.;
(ii) one or more insecticidal B.t. protein toxin genes; and
(iii) a single internal resolution site, derived from the ***site*** - ***specific*** recombination event.
Dwg.0/11

L10 ANSWER 15 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1993:402468 HCAPLUS
DOCUMENT NUMBER: 119:2468
TITLE: Improved method for ***site*** - ***specific*** oligonucleotide-mediated mutagenesis
INVENTOR(S): Andrews, William H.; Morser, Michael J.; Vilander, Laura R.
PATENT ASSIGNEE(S): Berlex Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 87 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9301282	A1	19930121	WO 1992-US5573	19920701
W: AU, CA, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
AU 9223171	A1	19930211	AU 1992-23171	19920701
EP 592597	A1	19940420	EP 1992-915645	19920701
EP 592597	B1	20010926		
R: DE, FR, GB, IT				
JP 06508757	T2	19941006	JP 1992-502321	19920701
US 5702931	A	19971230	US 1993-170290	19931228

PRIORITY APPLN. INFO.: US 1991-724237 A2 19910701
WO 1992-US5573 A 19920701
AB A method for ***site*** - ***specific*** mutagenesis uses a mutagenic oligonucleotide capable of changing a desired nucleotide and also capable of introducing or removing a restriction site at a different position. The novel DNA is easily identified by restriction anal. A 2nd method uses a vector contg. the target and a selectable or screenable ***marker*** gene and simultaneous oligonucleotide-directed mutagenesis
of the target and ***marker*** gene. In this case, transformed cells displaying an altered ***marker*** activity are most likely to have a mutated target sequence that can be identified by restriction anal. A 3rd method uses a vector contg. the target and two selectable or screenable ***marker*** genes. This vector can be used for sequential mutagenesis
of the target sequence. ***Site*** - ***specific*** mutagenesis of human thrombomodulin cDNA by the first procedure was described.

L10 ANSWER 16 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:209648 HCAPLUS
DOCUMENT NUMBER: 120:209648
TITLE: A series of yeast/Escherichia coli .lambda. expression vectors designed for directional cloning of cDNAs and cre/ ***lox*** -mediated plasmid excision
AUTHOR(S): Brunelli, Joseph P.; Pall, Martin L.
CORPORATE SOURCE: Dep. Genet. Cell Biol., Washington State Univ., Pullman, WA, 99164-4234, USA
SOURCE: Yeast (1993), 9(12), 1309-18
CODEN: YESTE3; ISSN: 0749-503X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A series of Saccharomyces cerevisiae/Escherichia coli .lambda./plasmid expression vectors have been constructed which allow easy excision of the plasmid sequences from .lambda.. Features of six are described, and two designated .lambda.PG15 and .lambda.AD5, are characterized in detail. Transcription of cloned sequences is controlled by the alternative promoters, ADH2, PGK, GAL10 and SV40 early, and by the CYC1 transcriptional terminator. Unique EcoRI and XhoI restriction sites in the intervening polylinker make these .lambda. vectors compatible for directional cloning of 'ZAP'-synthesized cDNAs. Inserted DNAs have been
previously shown to have high levels of the genetic activity in both S. cerevisiae and E. coli, allowing these vectors to be used for genetic complementation in both species. Plasmid recovery from the .lambda. vector is mediated by the activity of the cre-encoded enzyme upon ***lox*** sequences flanking the plasmid and adjoining the .lambda. arms. The plasmids contain the yeast 2 .mu.m origin and E. coli pBR322 origin, the URA3 or TRP1 yeast selectable markers, and ampicillin-resistance ***marker*** in E. coli. The usefulness of the .lambda.PG15 and the .lambda.AD5 cloning vectors was demonstrated by constructing large Neurospora crassa cDNA libraries. The .lambda.PG15-N.
crassa library was used to infect purE, purC and trpC mutants of E. coli, and complemented and/or suppressed prototrophic colonies were selected. The flexibility and power of this system for cloning of cDNAs is discussed.

=> d his

(FILE 'HOME' ENTERED AT 09:47:32 ON 09 APR 2003)

FILE 'BIOSIS, EMBASE, MEDLINE, WPIDS, HCAPLUS' ENTERED AT 09:47:48 ON 09 APR 2003
L1 84482 S LOX OR FRT OR ATT OR ATTP OR ATTB OR ATTL OR ATTR OR (SITE SP
L2 490143 S MARKER
L3 5791 S ORI OR (ORIGIN(W)REPLICATION)
L4 1415 S RARE(5N)(RESTRICTION OR ENDONUCLEASE)
L5 43362 S "PAC" OR "NOT" OR "FSE" OR "SCE" OR "PME" OR "SWA"
L6 44750 S L4 OR L5
L7 0 S L1 AND L2 AND L3 AND L6
L8 2274 S L1 AND L2
L9 18 S L1 AND L2 AND L3
L10 16 DUP REM L9 (2 DUPLICATES REMOVED)

=> s l1 and l3 and l6
L11 2 L1 AND L3 AND L6

=> s l1 and l6
L12 329 L1 AND L6

=> s l1 and l2 and l6
L13 43 L1 AND L2 AND L6

=> dup rem l13
PROCESSING COMPLETED FOR L13
L14 29 DUP REM L13 (14 DUPLICATES REMOVED)

=> d l14 ibib abs 1-29

=> s multiple cloning sites
L1 608 MULTIPLE CLONING SITES

=> s polylinkers
L2 176 POLYLINKERS

=> s l1 or l2
L3 771 L1 OR L2

=> s lox or frt or att or attl or attr or attb or attb or loxp or loxp511 or recombinase
L4 24715 LOX OR FRT OR ATT OR ATTL OR ATTR OR ATTB OR ATTB OR LOXP OR
LOXP511 OR RECOMBINASE

=> s l3 and l4
L5 17 L3 AND L4

=> dup rem l5
PROCESSING COMPLETED FOR L5
L6 7 DUP REM L5 (10 DUPLICATES REMOVED)

=> d l6 ibib abs 1-7

L6 ANSWER 1 OF 7 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 2002651334 MEDLINE
DOCUMENT NUMBER: 22297851 PubMed ID: 12409472
TITLE: Advanced modular self-inactivating lentiviral expression vectors for multigene interventions in mammalian cells and in vivo transduction.
AUTHOR: Mitta Barbara; Rimann Markus; Ehrengruber Markus U; Ehrbar
Martin; Djonov Valentin; Kelm Jens; Fussenegger Martin
CORPORATE SOURCE: Institute of Biotechnology, Swiss Federal Institute of
Technology, ETH Zurich, ETH Hoenggerberg, HPT, CH-8093 Zurich, Switzerland.
SOURCE: NUCLEIC ACIDS RESEARCH, (2002 Nov 1) 30 (21) e113.
Journal code: 0411011. ISSN: 1362-4962.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200211
ENTRY DATE: Entered STN: 20021105
Last Updated on STN: 20021211
Entered Medline: 20021125

AB In recent years, lentiviral expression systems have gained an unmatched reputation among the gene therapy community for their ability to deliver therapeutic transgenes into a wide variety of difficult-to-transfect/transduce target tissues (brain, hematopoietic system, liver, lung, retina) without eliciting significant humoral immune responses. We have cloned a construction kit-like self-inactivating lentiviral expression vector family which is compatible to state-of-the-art packaging and pseudotyping technologies and contains, besides essential cis-acting lentiviral sequences, (i) unparalleled ***polylinkers*** with up to 29 unique sites for restriction endonucleases, many of which recognize 8 bp motifs, (ii) strong promoters derived from the human cytomegalovirus immediate-early promoter (P(hCMV)) or the human elongation factor 1alpha
(P(hEF1)(alpha)), (iii) P(hCMV-) or P(PGK-) (phosphoglycerate kinase promoter) driven G418 resistance markers or fluorescent protein-based expression tracers and (iv) tricistronic expression cassettes for coordinated expression of up to three transgenes. In addition, we have designed a size-optimized series of highly modular lentiviral expression vectors (pLenti Module) which contain, besides the extensive central polylinker, unique restriction sites flanking any of the 5'U3, R-U5-psi+-SD, cPPT-RRE-SA and 3'LTR(DeltaU3) modules or placed within the
5'U3 (-78 bp) and 3'LTR(DeltaU3) (8666 bp). pLentiModule enables straightforward cassette-type module swapping between lentiviral expression vector family members and facilitates the design of Tat-independent (replacement of 5'LTR by heterologous promoter elements),
regulated and self-excisable proviruses (insertion of responsive operators or ***LoxP*** in the 3'LTR(DeltaU3) element). We have validated our lentiviral expression vectors by transduction of a variety of insect, chicken, murine and human cell lines as well as adult rat cardiomyocytes, rat hippocampal slices and chicken embryos. The novel multi-purpose construction kit-like vector series described here is compatible with itself as well as many other (non-viral) mammalian expression vectors for straightforward exchange of key components (e.g. promoters, LTRs, resistance genes) and will assist the gene therapy and tissue engineering communities in developing lentiviral expression vectors tailored for optimal treatment of prominent human diseases.

L6 ANSWER 2 OF 7 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 2000-543948 [49] WPIDS
DOC. NO. CPI: C2000-161948
TITLE: Isolated nucleic acid molecules encoding an attB1, attB2, attP1, attP2, attL1, attL2, attR1, and attR2 nucleotide sequence useful for the recombinational cloning of polypeptides.
DERWENT CLASS: B04 C06 D16 J04
INVENTOR(S): BRASCH, M A; CHEO, D; HARTLEY, J L; TEMPLE, G F
PATENT ASSIGNEE(S): (LIFE-N) LIFE TECHNOLOGIES INC; (INVI-N) INVITROGEN CORP
COUNTRY COUNT: 90
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000052027	A1	20000908	(200049)*	EN	451

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS
LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL
TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 2000036143 A 20000921 (200065)
EP 1173460 A1 20020123 (200214) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI
JP 2002537790 W 20021112 (200275) 435

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000052027	A1	WO 2000-US5432	20000302
AU 2000036143	A	AU 2000-36143	20000302
EP 1173460	A1	EP 2000-914799	20000302
		WO 2000-US5432	20000302
JP 2002537790	W	JP 2000-602252	20000302
		WO 2000-US5432	20000302

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000036143	A Based on	WO 200052027
EP 1173460	A1 Based on	WO 200052027
JP 2002537790	W Based on	WO 200052027

PRIORITY APPLN. INFO: US 1999-136744P 19990528; US 1999-122389P
19990302; US 1999-126049P 19990323
AN 2000-543948 [49] WPIDS
AB WO 200052027 A UPAB: 20001006
NOVELTY - Isolated nucleic acid molecules (I) encoding an attB1, attB2, attP1, attP2, attL1, attL2, attR1, and attR2 nucleotide sequence, all given in the specification, polynucleotides complementary to these sequences, mutants, fragments or derivatives, are new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) a primer nucleic acid molecule suitable for amplifying a target nucleotide sequence comprising (I) or a portion of (I) linked to a